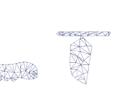
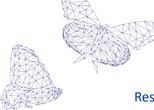




Summary and Takeaways Foresight Workshop $19^{th} \text{ Nov. } 2025$ $11-13 \text{ CET} \mid 12-14 \text{ EET}$







Research and innovation cooperation with added value





SUMMARY AND KEY TAKEAWAYS

On 19 November 2025, the LUKE project brought together over 20 researchers and policymakers from Ukrainian research institutions for the interactive online workshop "Strategic Foresight for Resilient Research and Innovation Systems." The session introduced participants to the principles and practical tools of strategic foresight, highlighting its value for strengthening the resilience of Ukraine's research and innovation ecosystem.

The workshop emphasised that **foresight is more than prediction**—it is a discipline of actively thinking about, anticipating, and shaping the future. Participants learned how foresight leverages **collective intelligence in a structured way**, helping organisations and policymakers anticipate developments and respond more effectively to change. Key tools explored included the **early identification of megatrends and emerging issues**, their policy implications, and the **use of alternative future scenarios** to support better strategic planning. A special focus was placed on **"wildcards"**—unpredictable events that could disrupt or accelerate system transformations. Through hands-on exercises, attendees analysed futuristic visions from the early 20th century, uncovering the biases and assumptions embedded in historical outlooks. They also examined future trends likely to influence Ukraine's research and innovation landscape over the next decade. The overall message was clear: **foresight is essential for navigating uncertainty and making more informed, resilient policy decisions.** Participants were encouraged to remain engaged with upcoming foresight initiatives. Those who could not join can access workshop materials on the LUKE Knowledge Hub website, while regular updates on project activities are available through the LUKE newsletters: https://horizon-europe.org.ua/en/luke/news/

Group Exercise on "What comes on mind? When thinking about the future?"

Geopolitical crises

War and Peace Doubts
Fear Peace uncertainty
Integration warm weather

Uncertainity risksAI Misinformation anxiety
Peace and reconstruction





Group Exercise on the future of the Ukrainian R&I System

Participants spend some time to find signals of change and trends. Afterwards among the participants a group discussion took place. The following assumptions are derived from the workshop, they are a first attempt to find and discuss trends, they were not validated or assessed. It is part of a learning exercise of the foresight method.

Early Signals of Change (visible today)

1. Technological Acceleration and Digital Transformation

• Rapid integration of AI and digital technologies into R&D, including remote access to research infrastructures and digital knowledge-sharing platforms. Growing reliance on AI-driven solutions that are likely to mature into dominant trends even before 10–15 years.

2. Rising Status of Science, Engineering, and Innovation

• Engineers, developers, and researchers are gaining stronger public respect and recognition. Increasing R&D intensity, funding opportunities, and growth in the number of R&D personnel. More people publicly advocating for research and innovation as essential to Ukraine's resilience and future development.

4. Strengthening International Cooperation

• Deployment and deepening of international scientific cooperation, including support from the EU and other countries. Ukraine's global scientific diaspora is highly active and positioned to lead or co-lead major international R&D efforts. This should be used by policy decision makers, to uphold a strong diaspora that is willing to migrate back to Ukraine.

5. Reconstruction Efforts Driving Innovation

 Early signals of large-scale post-conflict reconstruction planning requiring major investments in infrastructure and strategic sectors. Increased activity in innovation projects aimed at renewable energy, smart infrastructure, and modernisation of key economic sectors.

6. Societal and Cultural Shifts

• Growing openness to innovation, new technologies, and personal responsibility for societal improvement. Concerns emerging around declining critical thinking, even as technological skills rise.

7. Need for Multiple Future Scenarios

 Recognition that Ukraine must prepare for different geopolitical outcomes, informed by past experience where expectations (e.g., return of Crimea's research institutions) did not materialise.





Emerging Trends Likely to Shape the Next 10-15 Years

1. Ukraine as a Global Leader in Defence and Dual-Use Technologies

• Unique volume and quality of drone-warfare data positioning Ukraine as a world leader in drone defence systems. Long-term innovation in Al-powered defence technologies, UAV systems, cybersecurity, and autonomous platforms.

2. Green, Resilient, and Future-Proof Reconstruction

- Development of next-generation energy systems, including resilient renewable energy solutions and decentralized grids. Innovation in green reconstruction materials, energy-efficient buildings, and infrastructure designed to withstand modern threats.
- Urban transformation towards climate-adaptive, disaster-resilient cities.

3. International R&D Integration and Global Collaboration

 Expansion of international research networks, long-term R&D partnerships with leading universities and labs worldwide. Greater involvement of philanthropic and private-sector investment in Ukraine's innovation ecosystem. Increased mobility and collaboration with Ukraine's scientific diaspora.

4. Regional Innovation Ecosystems

• Strengthening of regional hubs leading to a more distributed, networked R&I system within Ukraine. Stronger local innovation clusters specialising in energy, digital, defence, agritech, and biomedical research.

5. Societal Demand for Innovation

• A population increasingly ready to adopt new technologies and participate in innovation processes. Emergence of new economic sectors driven by AI, engineering, and high-tech manufacturing, generating significant added value.

6. Adaptive Foresight and Policy Planning

 Increasing awareness that planning must accommodate multiple future scenarios due to ongoing uncertainty. Growing use of foresight tools to guide long-term policy and investment decisions.

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